

CLAIMS

What is claimed is:

1. An at least partially in-the-canal module for a hearing aid comprising:
a speaker module that generates audio signals from an electrical driving signal, said speaker module having a tubular body with a diameter that is smaller than the canal, said speaker module including an arcuate raised ridge; and
a cushion tip of elastic deformable material, said cushion tip including a tubular portion enclosing said speaker that applies an elastic force to said arcuate raised ridge to prevent removal of said speaker from said cushion tip, said tubular portion being longer than said speaker module to cause said cushion tip to deflect during navigation through the canal, and wherein a tip portion of said cushion tip possesses sufficient structural rigidity to prevent said speaker from being pushed through said cushion tip during navigation through the canal.
2. The at least partially in-the-canal module for a hearing aid of claim 1 further comprising:
an insulated wiring portion fixidly attached to said speaker module that enables said speaker module and said cushion tip to be removed from said canal and that communicates said electrical driving signal.
3. The at least partially in-the-canal module for a hearing aid of claim 2 wherein said insulated wiring portion is terminated by a plurality of prongs that provide a detachable mechanical and electrical connection to an audio processing module.
4. The at least partially in-the-canal module for a hearing aid of claim 1 wherein said elastic deformable material is a polymer material.
5. The at least partially in-the-canal module for a hearing aid of claim 1 wherein said elastic deformable material is a silicone material.

6. The at least partially in-the-canal module for a hearing aid of claim 1 wherein said tip portion is sized to substantially seal said canal when said tip portion is inserted into the bony portion of the canal.

7. A hearing aid comprising:

a behind-the-ear module comprising a microphone for receiving an audio signal and a signal processing component for generating an electrical driving signal;

a speaker module that generates audio signals from said electrical driving signal, said speaker module having a tubular body with a diameter that is smaller than the canal, said speaker module including an arcuate raised ridge; and

a cushion tip of elastic deformable material, said cushion tip including a tubular portion enclosing said speaker that applies an elastic force to said arcuate raised ridge to prevent removal of said speaker from said cushion tip, said tubular portion being longer than said speaker module to cause said cushion tip to deflect during navigation through the canal, and wherein a tip portion of said cushion tip possesses sufficient structural rigidity to prevent said speaker from being pushed through said cushion tip during navigation through the canal.

8. The hearing aid of claim 7 further comprising:

an insulated wiring portion fixidly attached to said speaker module that enables said speaker module and said cushion tip to be removed from said canal and that communicates said electrical driving signal.

9. The hearing aid of claim 8 wherein said insulated wiring portion is terminated by a plurality of prongs that provide a detachable mechanical and electrical connection to said behind-the-ear module.

10. The hearing aid of claim 7 wherein said elastic deformable material is a polymer material.

11. The hearing aid of claim 7 wherein said elastic deformable material is a silicone material.

12. The hearing aid of claim 7 wherein said tip portion is sized to substantially seal said canal when said tip portion is inserted into the bony portion of the canal.